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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/650,153	08/26/2003	Timothy J. Collins	CML01464M	7078
22917 7590 11/27/2007 MOTOROLA, INC. 1303 EAST ALGONQUIN ROAD IL01/3RD SCHAUMBURG, IL 60196			EXAMINER AGWUMEZIE, CHARLES C	
			ART UNIT 3621	PAPER NUMBER
			NOTIFICATION DATE 11/27/2007	DELIVERY MODE ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No.		Applicant(s)	
	10/650,153		COLLINS ET AL.	
	Examiner		Art Unit	
	Charlie C. Agwumezie		3621	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 28 September 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,5-11 and 15-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1, 5, 6-11, and 15-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>01/10/06</u> | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.1141.

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on September 28, 2007 has been entered.

Acknowledgements

2. Applicants' amendment filed on August 20, 2007 is acknowledged. Accordingly claims 2-4, and 12-14 are cancelled and claims 1, 5, 6-11 and 15-18 remain pending. Applicant's remark on page 5 first paragraph that claims 1, 5-13 and 15-18 are pending is in error.

Election/Restrictions

3. Claims 1, 6, 10, 11, 15 and 17, have been found not to be patentably distinct from each other and for this reason no restriction is necessary at this time.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claims 1, 5, 6-9, 10, 11, 15-16 and 17-18, are not been rejected under 35

U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention because the meets and bounds of the claim can be determined. However, Examiner interprets the claim phrases "obtaining a first number", "obtaining a second number" as being two broad but not indefinite. For example how does one obtain a serial number or an RFID tag number? Is it by looking at it or picking it up by hand or by a device?

Claim Rejections - 35 USC § 102

5. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, 6-11 and 15-18, as understood by the Examiner, are rejected under 35 U.S.C. 102(b) as being anticipated by Halperin et al U.S. Patent No. 6,226,619.

As per **claims 1, and 10**, Halperin et al discloses a method for determining if an item is a fraudulent item, the method comprising the steps of:

obtaining a first number (small tag 2, figs. 1 and 2) associated with the item or item's packaging (fig. 1; col. 5, lines 55-65, which discloses "... number read from the tag ...");

obtaining a second number (label serial number, fig. 1) associated with the item or item's packaging (fig.1; col. 5, lines 55-65, which discloses "serial number on the label");

utilizing a public-key cryptographic process and the first number to cryptographically verify the second number (col. 3, lines 5-15, which discloses that "the customer also can check that the serial number and the coded number in the tag are compatible using some public-key"; col. 5, lines 50-65, which discloses that "...verifying ... the number read from the tag with a number on the serial number on the label..."); and

determining the product's authenticity based on the verification (col. 2, lines 50-55, which discloses that "the item includes indicia ... for comparism with a secret ... designating authenticity"; col. 3, lines 5-15, which discloses that the customer can participate by verifying that different items on shelves have different serial numbers; col. 5, lines 50-65).

As per **claim 5**, Halperin et al further discloses the method wherein the step of determining the products authenticity comprises the step of associating the product with an authentic product if the signature is verified, otherwise associating the product with a forged product (fig. 1; col. 2, lines 50-55, which discloses that "the item includes indicia ... for comparism with a secret ... designating authenticity"; col. 4, lines 30-40, which discloses that "the customer verify ... that the encrypted number carried by the tag corresponds to the unique serial number ", col. 7, lines 10-15, which discloses that "a

unique signature is provided by the tag"; col. 7, line 65-col. 8, line 10).

As per **claim 6**, Halperin et al further discloses a method of manufacturing a product in order to prevent forgery, the method comprising the steps of:

obtaining an RFID tag (small tag 2, figs. 1 and 2) comprising a first number (fig. 1; col. 5, lines 55-65, which discloses "... number read from the tag ...");

determining a second number utilizing the first number and a cryptographic process, wherein cryptographic verification of the second number insures the product's authenticity (fig. 1; "label serial number", col. 2, lines 50-55, which discloses that "the item includes indicia ... for comparison with a secret ... designating authenticity", col. 5, lines 50-65, which discloses that the verification operation may include simply verifying ... the number read from the tag with the number on the serial number on the label");

affixing the first number (small tag 2 affixed to bottle, fig. 1) to either the product or the packaging associated with the product (fig. 1; col. 2, lines 45-55; col. 5, which discloses a tag 72 for being affixed to a high value item"); and

affixing the second number (label serial number 3, fig. 1) to either the product or the packaging associated with the product (fig. 1; label serial number affixed to the bottle).

As per **claim 7**, Halperin et al further discloses the method wherein the step of obtaining the tag comprising the first number comprises the step of obtaining an RFID tag comprising a unique, or semi-unique unalterable number (fig. 1; col. 4, lines 5-15,

which discloses that “a tag is used that is preferably unique...that cannot be duplicated”).

As per **claim 8**, Halperin et al further discloses the method wherein the step of affixing the second number to either the product or the packaging associated with the product comprises the step of printing a cryptographic signature on the product or the product's packaging (col. 7, lines 5-15, which discloses that “a unique signature is provided by a tag”).

As per **claim 9**, Halperin et al further discloses the method wherein the step of determining the second number utilizing the first number and a cryptographic process comprises the step of utilizing the first number and a private key to generate the second number (col. 7, lines 35-40, which discloses the use of public and private key(s) to verify the authenticity of the label).

As per **claim 11**, Halperin et al discloses a method comprising the steps of:

obtaining an RFID tag (small tag 2, figs. 1 and 2) comprising a first number (col. 5, lines 55-65, which discloses “... number read from the tag ...”);

utilizing a private key and the first number to create a second number such that cryptographic verification of the second number insures a product's authenticity (col. 7, lines 35-40, which discloses the use of public and private key(s) to verify the authenticity of the label); and

affixing the second number (serial number label 3, fig. 1) and the RFID tag (small tag 2, fig. 1) to the item or the item's packaging (see fig. 1; col. 2, lines 45-55; col. 5, which discloses a tag 72 for being affixed to a high value item”).

As per **claim 15**, Halperin et al further discloses a product scanner comprising:
an RF tag reader (tag reader 74, fig. 7) outputting contents of an RF tag (fig. 7; tag reader 74; col. 5, lines 1-5, which discloses a tag reader 74 for interrogating the tag 72; col. 5, lines 50-65, which discloses that the tag is interrogated or read by hand-held tag reader 4);

an optical scanner outputting a public-key cryptographic signature (col. 7, lines 10-15, which discloses that “a unique signature is provided by the tag which may be implemented by a bar-code which may be read upon the sale”, Note: Hand-held readers are inherently optical scanners used for reading bar-codes); and

logic circuitry having the contents of the RF tag and the public-key cryptographic signature as an input and outputting information as to whether an item is a forgery (col. 2, lines 45-55, which discloses that “the item includes indicia ... for comparism with a secret ... designating authenticity”).

As per **claim 16**, Halperin et al further discloses the product scanner wherein the logic circuitry utilizes a public key and cryptographic operations to verify the cryptographic signature (col. 3, lines 5-15, which discloses that “the customer also can check that the serial number and the coded number in the tag are compatible using

some public-key", col. 4, lines 25-40; col. 5, lines 50-65; col. 7, lines 10-15, which discloses that "a unique signature is provided by the tag).

As per **claim 17**, Halperin et al discloses an apparatus comprising:

an RF reader (hand-held reader 4, fig. 1 or tag reader 74, fig. 7) outputting contents of an RF tag (fig. 1; col. 5, lines 50-65, which discloses that the tag is interrogated or read by hand-held tag reader 4);

logic circuitry having the contents of the RF tag as an input and outputting a public-key cryptographic signature based on the contents of the RFID tag (fig. 1 and 2; col. 2, lines 45-55, col. 7, lines 10-15, which discloses that "a unique signature is provided by the tag which may be implemented by a bar-code which may be read upon the sale"); and

printing circuitry having the public-key cryptographic signature as an input and printing the public-key cryptographic signature upon an item or packaging (fig. 1; col. 4, "burned-in"; col. 7, lines 5-15, which discloses that "a unique signature is provided by a tag").

As per **claim 18**, Halperin et al further discloses the apparatus further comprising: an RF writer outputting product information for the item to the RF tag (col. 4, lines 45-55, which discloses that "the tag reader also would modify or write to the tag").

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6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 15-16, as understood by the Examiner, are alternatively rejected under 35 U.S.C. 103(a) as being unpatentable over Halperin et al U.S. Patent No. 6,226,619 in view of Appalucci et al U.S. patent Application Publication No. 2003/0057276 A1¹.

As per **claim 15**, Halperin et al further discloses a product scanner comprising:

an RF tag reader (tag reader 74, fig. 7) outputting contents of an RF tag (fig. 7; tag reader 74; col. 5, lines 1-5, which discloses a tag reader 74 for interrogating the tag 72; col. 5, lines 50-65, which discloses that the tag is interrogated or read by hand-held tag reader 4);

an optical scanner outputting a public-key cryptographic signature (col. 7, lines 10-15, which discloses that "a unique signature is provided by the tag which may be implemented by a bar-code which may be read upon the sale", Hand-held readers are inherently optical scanners used for reading bar-codes); and

logic circuitry having the contents of the RF tag and the public-key cryptographic signature as an input and outputting information as to whether an item is a forgery (col. 2, lines 45-55, which discloses that "the item includes indicia ... for comparison with a secret ... designating authenticity").

It is the Examiner principal position that the claims are anticipated because of the inherent features (i.e. the old and well known structure and feature of scanners as being optical). However if not found inherent, Appalucci et al directly teaches the use of optical scanners to read and/or output a public-key cryptographic signature.

Accordingly, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Halperin et al in view of the teachings of Appalucci et al to include optical scanner to read and /or output the public-key cryptographic signature in order to establish the product authenticity by comparing the signature with the second number.

Response to Arguments

6. Applicant's arguments with respect to claim 15 have been considered but are moot in view of the new ground(s) of rejection.

Applicant's arguments filed August 20, 2007 have been fully considered but they are not persuasive.

With respect to claim 17, Applicant argues that Halperin et al does not describe a public-key cryptographic signature that has been generated based on the contents of the RFID tag printed on the item or packaging. That Halperin et al describes printing non-encrypted information on the item or packaging.

In response, Examiner respectfully disagrees and submits that Halperin et al clearly discloses that "a unique signature is provided by a tag" (col. 7, lines 5-15 "unique

¹ See MPEP § 2112 expressly authoring alternative § 102/§103 rejections when the question of inherency

signature"). Thus Halperin is replete with public-key cryptographic signature that has been generated based on the contents of the RFID tag printed on the item or packaging.

With respect to claims 1, and 5-11, Applicant argues that it would not be obvious at the time of invention to switch the location of the first and second numbers. That it would not have been practical to put a reasonably generated public-key signature into an RFID tag of the type available at that time.

In response and as stated above, Halperin et al clearly discloses that the "a unique signature is provided by a tag" (col. 7, lines 5-15 "unique signature"). If the RFID tag at that time provided a unique signature, what then is the Applicant arguing about.

Accordingly Halperin et al does disclose the claimed invention.

Conclusion

7. **Examiner's Note:** Examiner has cited particular columns and line numbers in the references as applied to the claims below for the convenience of the applicant. Although the specified citations are representative of the teachings in the art and are applied to the specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested that the applicant, in preparing the responses, fully consider the references in entirety as potentially teaching all or part of

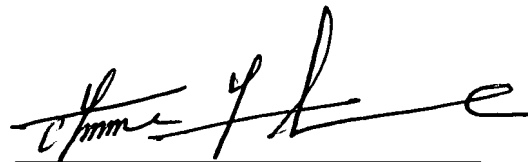
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the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the examiner.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to **Charles C. Agwumezie** whose number is **(571) 272-6838**. The examiner can normally be reached on Monday – Friday 8:00 am – 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, **Andrew Fischer** can be reached on **(571) 272 – 6779**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



Charlie Lion Agwumezie
Patent Examiner
Art Unit 3621

Acc
November 13, 2007.